BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- IMPROVEMENTS AND ASPHALTING TO ROADS AT KAMAKSHAMMA LAYOUT IN CHOWDESHWARI WARD NO. 02 OF YELAHANKA SUB DIVISION

								Estimation Cost.Rs	3000000.00
Sl No	Description of work		Mesurement				Qty	Rate	Amount
		Unit	No.	L	B	D			
1	KSRRB M200-12.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means :B. Cement Concrete Grade M-15 & M-20. MORTH Specification No. 202. Page No. 139, Item No.18.18 and Pg No.136, Item No.17.4,17.1 (5km lead = 57+2*1.28X5)								
	Culvert								
	Bottom Raft								
	Kamakshamma Badavane								
	1st Cross road	Cum	1	6.00	1.25	0.20	1.50		
	Cross Road 3 (Right)	Cum	1	5.00	1.15	0.20	1.15		
	Side Wall								
	Kamakshamma Badavane								
	1st Cross road	Cum	2	6.00	0.20	0.50	1.20		
	Cross Road 3 (Right)	Cum	2	5.00	0.20	0.50	1.00		
	Basic rate	557.00							
	Area weightage 6%	33.42							
	5Km lead & Lift= 57+(2*1.28*5)	69.80							
	Sub Total	**660.22**							
	Total						**4.85**	**660.22**	**3203.00**
2	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1) 5km lead= 57+2.0x1.28x5 =69.80								
	New Drain								
	Kamakshamma Badavane								
	Cross Road	Cum	2	54.00	0.95	0.90	92.34		
	New Culvert								
	Kamakshamma Badavane								
	1st Cross road	Cum	1	6.00	1.70	0.85	8.67		
	Cross Road 3 (Right)	Cum	1	5.00	1.70	0.85	7.23		
	Basic rate	130.00							
	Area weightage 6%	7.80							
	5Km lead & Lift= 57+(2*1.28*5)	69.80							
	Sub Total	**207.60**							
	Total						**108.24**	**207.60**	**22470.00**
3	KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.13, I.No. 4.3)								
	For Drain								
	Kamakshamma Badavane								
	Cross Road	Cum	2	54.00	0.95	0.15	15.39		
	For Culvert								
	Kamakshamma Badavane								
	1st Cross road	Cum	1	6.00	1.70	0.15	1.53		
	Cross Road 3 (Right)	Cum	1	5.00	1.70	0.15	1.28		
	Basic rate	5475.28							
	Area weightage 6%	328.52							
	Sub Total	**5803.80**							
	Total						**18.20**	**5803.80**	**105601.00**

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
4	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs.With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering,cost of materials,HOM of Machinery,Curing Etc.,Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm(Item No 37.59.2 page no 271)								
	Drain								
	Bottom Raft								
	Kamakshamma Badavane								
	Cross Road	Cum	2	54.00	0.75	0.15	12.15		
	Side Wall								
	Kamakshamma Badavane								
	Cross Road	Cum	4	54.00	0.15	0.60	19.44		
						Sub Total	**31.59**		
	Culvert								
	Bottom Raft								
	Kamakshamma Badavane								
	1st Cross road	Cum	1	6.00	1.50	0.20	1.80		
	Cross Road 3 (Right)	Cum	1	5.00	1.50	0.20	1.50		
	Side Wall								
	Kamakshamma Badavane								
	1st Cross road	Cum	2	6.00	0.20	0.50	1.20		
	Cross Road 3 (Right)	Cum	2	5.00	0.20	0.50	1.00		
						Sub Total	**5.50**		
	Basic rate	7292.14							
	Area weightage 6%	437.53							
	Sub Total	**7729.67**					**37.09**	**7729.67**	**286694.00**
	Total								
5	KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2								
	For Drain	Cum	From Item No.4				31.59		
		kg	Steel assumed 60Kg/Cum of Concrete				1895.40		
		tonne					**1.90**		
	For Culvert	Cum	From Item No.4				5.50		
		kg	Steel assumed 90 Kg/Cum of Concrete				495.00		
		tonne					**0.50**		
	Basic rate	85468							
	Area weightage 6%	5128.08							
	Sub Total	**90596.08**					**2.39**	**90596.08**	**216561.00**
	Total								
6	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	New Drain Cover slab								
	Kamakshamma Badavane								
	Cross Road	Sqm	2	54.00	0.75		81.00		
	Data rate	**1922.00**							
	Total						**81.00**	**1922.00**	**155682.00**

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
7	Providing and Fixing pre cast **covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge								
	Culvet cover Slab								
	Kamakshamma Badavane								
	1st Cross road	Sqm	1	6.00	1.50		9.00		
	Cross Road 3 (Right)	Sqm	1	5.00	1 50		7.50		
	Data rate	**5418.00**							
	Total						**16.50**	**5418.00**	**89397.00**
8	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of Mix 1:2:4** with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No-13,I No-4.6)								
	Kerb PCC								
	Kamakshamma Badavane								
	1st Main Road	Cum	1	237.00	0.20	0.10	4.74		
	Basic rate	5919.71							
	Area weightage 6%	355.18							
	Sub Total	**6274.89**							
	Total						**4.74**	**6274.89**	**29743.00**
9	**Removing and resetting of Kerb stones** (Item No. 37.57, Page 270)								
	Kamakshamma Badavane								
	1st Main Road	m	1	237.00			237.00		
	Sub total						237.00		
	Deduct 10% for Missing/Damaged						23.70		
	Deduct 90% for Removing and Refixing						213.30		
	Basic rate	99.00							
	Area weightage 6%	5.94							
	Sub total	104.94							
	Total						**213.30**	**104.94**	**22384.00**
10	Providing and fixing **pre cast solid cement concrete kerb stones** made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. As per the direction of Engineer incharge. (P.No.27, I.No.5.30 of PW, P&IWTD SR 2018-19)								
	Kamakshamma Badavane								
	Deduct 10% for Missing/Damaged	From Item 17					23.70		
	Total length	m					23.70		
	No of Kerb Stones	Total Length/0.45					52.67		
	Sub Total	**Nos**					**53.00**		
	Basic rate	408.00							
	Area weightage 6%	24.48							
	Sub Total	**432.48**							
	Total						**53.00**	**432.48**	**22922.00**
11	KSRRB 800-1. **Painting two coats** after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No.180. Iitem no.24.1 of KPWD S.R Bangalore Circle 2018-2019)								
	Kerb Painting								
	1st Main Road	Sqm	1	237.00		0.40	94.80		
	Basic rate	80.00							
	Area weightage 6%	4.80							
	Sub Total	**84.80**							
	Total						**94.80**	**84.80**	**8040.00**

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
12	KSRRB M300-14. **Excavation for roadwork in all types of soil** by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 5km lead= (I No-19.14,P No-143)								
	Road Cut Portion								
	Kamakshamma Badavane								
	1st Cross road	Cum	1	20.00	0.60	0.20	2.40		
	Cross Road 1 (Left)	Cum	1	14.00	1.00	0.20	2.80		
	Cross Road 2 (Left)	Cum	1	16.00	1.10	0.20	3.52		
	Cross Road 3 (Left)	Cum	1	11.00	0.60	0.20	1.32		
	Cross Road 4 (Left)	Cum	1	13.00	2.00	0.20	5.20		
	Cross Road 1 (Right)	Cum	1	11.00	3.00	0.20	6.60		
	Cross Road 2 (Right)	Cum	1	5.00	0.40	0.20	0.40		
	Cross Road 3 (Right)	Cum	1	7.00	3.00	0.20	4.20		
	1st Main Road	Cum	1	15.00	2.00	0.20	6.00		
	Basic rate	41.00							
	Area weightage 6%	2.46							
	5Km lead=(2*1.28*5)	12.80							
	Sub Total	**56.26**							
	Total						**32.44**	**56.26**	**1826.00**
13	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix **macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	For Cut Portion								
	Kamakshamma Badavane								
	1st Cross road	Cum	1	20.00	0.60	0.20	2.40		
	Cross Road 1 (Left)	Cum	1	14.00	1.00	0.20	2.80		
	Cross Road 2 (Left)	Cum	1	16.00	1.10	0.20	3.52		
	Cross Road 3 (Left)	Cum	1	11.00	0.60	0.20	1.32		
	Cross Road 4 (Left)	Cum	1	13.00	2.00	0.20	5.20		
	Cross Road 1 (Right)	Cum	1	11.00	3.00	0.20	6.60		
	Cross Road 2 (Right)	Cum	1	5.00	0.40	0.20	0.40		
	Cross Road 3 (Right)	Cum	1	7.00	3.00	0.20	4.20		
	1st Main Road	Cum	1	15.00	2.00	0.20	6.00		
	Basic rate	1888.00							
	Area weightage 6%	113.28							
	Sub Total	**2001.28**							
	Total						**32.44**	**2001.28**	**64922.00**
14	KSRRB M500-6. Providing and applying **primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	For Cut Portion								
	Kamakshamma Badavane								
	1st Cross road	Sqm	1	20.00	0.60		12.00		
	Cross Road 1 (Left)	Sqm	1	14.00	1.00		14.00		
	Cross Road 2 (Left)	Sqm	1	16.00	1.10		17.60		
	Cross Road 3 (Left)	Sqm	1	11.00	0.60		6.60		
	Cross Road 4 (Left)	Sqm	1	13.00	2.00		26.00		
	Cross Road 1 (Right)	Sqm	1	11.00	3.00		33.00		
	Cross Road 2 (Right)	Sqm	1	5.00	0.40		2.00		
	Cross Road 3 (Right)	Sqm	1	7.00	3.00		21.00		
	1st Main Road	Sqm	1	15.00	2.00		30.00		
	Basic rate	32.00							
	Area weightage 6%	1.92							
	Sub Total	**33.92**							
	Total						**162.20**	**33.92**	**5502.00**

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
15	KSRRB 500-2.Cleaning the existing black topped surface with brooms,soft brushes and finally dusting with old gunny bags and/or compressed air to receive bituminous treatment including cost of all materials,labhour, HOM of machineries complete as per specifications.(P.No.158,I.No.21.2).								
	BC overlay								
	Kamakshamma Badavane								
	1st Cross road	Sqm	1	148.00	5.60		828.80		
	Cross Road 1 (Left)	Sqm	1	54.00	4.60		248.40		
	Cross Road 2 (Left)	Sqm	1	44.00	5.20		228.80		
	Cross Road 3 (Left)	Sqm	1	46.00	4.20		193.20		
	Cross Road 4 (Left)	Sqm	1	40.00	5.20		208.00		
	Cross Road 1 (Right)	Sqm	1	35.00	4.20		147.00		
	Cross Road 2 (Right)	Sqm	1	37.00	4.20		155.40		
	Cross Road 3 (Right)	Sqm	1	34.00	5.20		176.80		
	1st Main Road	Sqm	1	237.00	6.00		1422.00		
	Basic rate	5.00							
	Area weightage 6%	0.3							
	Sub Total	**5.30**					3608.40	5.30	19125.00
	Total								
16	KSRRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6)								
	Road Cut Portion								
	Kamakshamma Badavane								
	1st Cross road	Cum	1	20.00	0.60	0.05	0.60		
	Cross Road 1 (Left)	Cum	1	14.00	1.00	0.05	0.70		
	Cross Road 2 (Left)	Cum	1	16.00	1.10	0.05	0.88		
	Cross Road 3 (Left)	Cum	1	11.00	0.60	0.05	0.33		
	Cross Road 4 (Left)	Cum	1	13.00	2.00	0.05	1.30		
	Cross Road 1 (Right)	Cum	1	11.00	3.00	0.05	1.65		
	Cross Road 2 (Right)	Cum	1	5.00	0.40	0.05	0.10		
	Cross Road 3 (Right)	Cum	1	7.00	3.00	0.05	1.05		
	1st Main Road	Cum	1	15.00	2.00	0.05	1.50		
	Basic rate	8062.00							
	Area weightage 6%	483.72							
	Sub Total	**8545.72**					8.11	8545.72	69306.00
	Total								
17	KSRRB 500-7. Providing and **applying tack coat** using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	Kamakshamma Badavane								
	1st Cross road	Sqm	1	148.00	5.60		828.80		
	Cross Road 1 (Left)	Sqm	1	54.00	4.60		248.40		
	Cross Road 2 (Left)	Sqm	1	44.00	5.20		228.80		
	Cross Road 3 (Left)	Sqm	1	46.00	4.20		193.20		
	Cross Road 4 (Left)	Sqm	1	40.00	5.20		208.00		
	Cross Road 1 (Right)	Sqm	1	35.00	4.20		147.00		
	Cross Road 2 (Right)	Sqm	1	37.00	4.20		155.40		
	Cross Road 3 (Right)	Sqm	1	34.00	5.20		176.80		
	1st Main Road	Sqm	1	237.00	6.00		1422.00		
	Basic rate	12.00							
	Area weightage 6%	0.72							
	Sub Total	**12.72**					3608.40	12.72	45899.00
	Total								

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
18	KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 507 of MORTH V revision using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-ll (30 mm to 45 mm) with 5.4% VG-30 Bitumen(P.No-162,I No-21.22.6)								
	Kamakshamma Badavane								
	1st Cross road	Cum	1	148.00	5.60	0.04	33.15		
	Cross Road 1 (Left)	Cum	1	54.00	4.60	0.04	9.94		
	Cross Road 2 (Left)	Cum	1	44.00	5.20	0.04	9.15		
	Cross Road 3 (Left)	Cum	1	46.00	4.20	0.04	7.73		
	Cross Road 4 (Left)	Cum	1	40.00	5.20	0.04	8.32		
	Cross Road 1 (Right)	Cum	1	35.00	4.20	0.04	5.88		
	Cross Road 2 (Right)	Cum	1	37.00	4.20	0.04	6.22		
	Cross Road 3 (Right)	Cum	1	34.00	5.20	0.04	7.07		
	1st Main Road	Cum	1	237.00	6.00	0.04	56.88		
	Basic rate	9435.00							
	Area weightage 6%	566.10							
	Sub Total	**10001.10**					144.34	10001.10	1443519.00
	Total								
19	KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Kamakshamma Badavane								
	1st Cross road	Sqm	2	148.00	0.10		29.60		
	Cross Road 1 (Left)	Sqm	2	54.00	0.10		10.80		
	Cross Road 2 (Left)	Sqm	2	44.00	0.10		8.80		
	Cross Road 3 (Left)	Sqm	2	46.00	0.10		9.20		
	Cross Road 4 (Left)	Sqm	2	40.00	0.10		8.00		
	Cross Road 1 (Right)	Sqm	2	35.00	0.10		7.00		
	Cross Road 2 (Right)	Sqm	2	37.00	0.10		7.40		
	Cross Road 3 (Right)	Sqm	2	34.00	0.10		6.80		
	1st Main Road	Sqm	2	237.00	0.10		47.40		
	Basic rate	429.00							
	Area weightage 6%	25.74							
	Sub Total	**454.74**					135.00	454.74	61390.00
	Total							**Grand Total**	2674186.00
								GST Charges (12% of estimated cost)	320902.32
								Miscellenious and rounding	4911.68
								Total Amount	3000000.00
								RUPEES THIRTY LAKHS ONLY	

Technical Sanction
Accorded For 30.00Lakh
Head of A/C...3726
CER NO :...68 Dt:13/12/21

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019,Issue rates and Data Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Executive Engineer
BBMP

Administrative Approval
Accorded For ...30.00Lakh.
Head of A/C....3726.....
CER NO :....60..... Dt:13/12/21

TA

CE (YNK)